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April 7, 2004

Via Electronic Mail and Certified Mail
Return Receipt Requested

Mr. Kevin Adler, Remedial Project Coordinator
U.S. Environmental Protection Agency, Region 5
Office of Superfund, Remedial & Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: Granville Solvents Site Removal Action Quarterly Report – First Quarter 2004

Dear Mr. Adler:

On behalf of the Granville Solvents Site Response Management Group, LLC, Metcalf & Eddy of Ohio, Inc. respectfully submits the Quarterly Report for the Removal Action at the Granville Solvents Site. Copies have been sent to the following individuals:

Mr. Steve Acree, U.S. EPA (2 copies)
Mr. Peter Felitti, U.S. EPA (cover letter)
Mr. Fred Myers, Ohio EPA (1 copy)
Mr. Joe Hickman, Manager, Village of Granville (1 copy)

If you have questions regarding this submittal, please contact me at (614) 890-5501.

Respectfully,

METCALF & EDDY OF OHIO, INC.

Gerald R. Myers (4)

Gerald R. Myers
Program Director

cc: B. Pfefferle, Baker & Hostetler – Steering Committee Chairman
W. Brewer, Duke University - Technical Committee Chairman

bcc: GSS-PRP Group Technical Committee
M. Andrew, M&E
D. M. Jones, M&E
File #036204175.0001.00011

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GRANVILLE SOLVENTS SITE
REMOVAL ACTION QUARTERLY REPORT
FOR JANUARY, FEBRUARY, and MARCH 2004

APRIL 2004

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, November 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group (currently represented as the Granville Solvents Site Response Management Group, LLC), in Section 2.5-Reporting, and the letter, dated February 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC. This report covers the period of January 1, 2004, through March 31, 2004.

I. PROGRESS MADE DURING REPORTING PERIOD

Source Area Groundwater Control

The groundwater pumping and treatment system operated 744 hours in January, 696 hours in February, and 744 hours in March, for a total of 2,184 hours (100% of the total time available) during the first quarter of 2004. Since operation of the treatment system began in December 1994, the system has operated 98.9% of the available time.

The treatment system processed approximately 10.6million gallons of water in January, 11.3 million gallons of water in February, and 12.4 million gallons of water in March, for a total of 34.3 million gallons of water for the quarter. Since operation began in December 1994, more than one billion gallons of groundwater (1,152,369,062 gallons) have been extracted and treated.

During the first quarter of 2004, M&E collected monthly air pressure measurements in the air-stripping unit's exhaust duct, which was used to calculate airflow values. The measured airflow was 1,985 cubic feet per minute (cfm) in January, 1,967 cfm in February and 1,956 cfm in March.

M&E continued to perform the scheduled monthly maintenance on the treatment system. This maintenance ensures the system is performing at maximum efficiency and decreases unscheduled downtime. The maintenance included replacing the bag filters, lubricating the transfer pump and blower motors, and checking the flow meters and level sensors.

Water samples were collected from the system's influent and effluent sampling ports on January 12, February 12, and March 8. The analytical results are presented in Table 1.

Starting October 27, 2003, pumping well GSS-EW1 was shut down and GSS-EW2 was run exclusively at an increased rate of 270 gallons per minute (gpm). Groundwater level measurements were collected on several occasions thereafter to ensure that this pumping scheme

was effective in creating a groundwater divide between the Granville Solvents Site and the Village of Granville wellfield. A complete discussion of the new pumping scheme and the potentiometric surface were provided in a January 31, 2004 letter from M&E to the U.S. EPA.

Extraction well GSS-EW2 was operated at an average pumping rate of 256 gallons per minute (gpm) during January. During mid-February the flow rate from GSS-EW2 briefly fluctuated due to deposition of calcium and iron scale inside the piping from the well to the treatment building. The pumping rate was readjusted and the total average pumping rate for the month of February was about 256 gpm, with the average pumping rate for the quarter at 261 gpm.

TABLE 1
Monthly Influent/Effluent Sampling Results

VOCs	Influent January 12	Effluent January 12	Influent February 12	Effluent February 12	Influent March 8	Effluent March 8
1,1,1-Trichloroethane	13.0 µg/l	ND	15 µg/l	ND	17 µg/l	ND
cis-1,2-Dichloroethene	1.8 µg/l	ND	2.0 µg/l	ND	2.0 µg/l	ND
Tetrachloroethene	14.0 µg/l	ND	10 µg/l	ND	10 µg/l	ND
Trichloroethene	18.0 µg/l	0.27J µg/l	20 µg/l	ND	20 µg/l	0.28J µg/l
1,1-Dichloroethane	0.39J µg/l	ND	0.43J µg/l	ND	0.48J µg/l	ND

ND - not detected

Approximately 34.3 million gallons of water were processed for the first quarter of 2004. Based on these data, total VOCs of approximately 0.19 lb/day in January, 0.18 lb/day in February and 0.21 lb/day in March, were discharged to the atmosphere during this reporting period.

Concentrations of TCE were detected in the effluent from the groundwater treatment system. The concentrations are well below the discharge limits of 5 ug/l established by Ohio EPA.

Groundwater Monitoring

Groundwater level measurements were collected on February 5. These data were used to develop a potentiometric surface map, which is included as Figure 1 with this report. Quarterly groundwater sampling was conducted on February 26. The results are provided as Table 2 below.

TABLE 2
Quarterly Groundwater Monitoring Results

VOCs	MW-6	GSS-MW8	MW-8	GSS-MW9	GSS-MW10	GSS-MW14
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	53 µg/l	0.28 J µg/l	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	3.2 µg/l	ND	ND	ND

ND – not detected

Source Area Soils

Source area soils are undergoing treatment at this time utilizing air injection (AI), air sparging (AS) and soil vapor extraction (SVE). The treatment systems have been in operation since December 2000. The soil vapor extraction system previously operated with a biweekly schedule in which one half of the SVE wells were operated during one period and one half operated during the alternate period. The vacuum extraction system under the cap was operated during all periods. The biweekly alternation was changed on May 2, 2003 such that all vacuum extraction wells are now operated simultaneously. The average flow rate for the SVE system this quarter was approximately 231 standard cubic feet per minute (scfm).

A SUMMA canister sample of the SVE system influent was collected March 8. The results are provided in Table 3 below.

TABLE 3
Summa Canister Sampling
Detected Parameters

Compound	Concentration (ppmv)	Concentration (g/m^3)
Tetrachloroethene	0.210	1424
Trichloroethene	0.240	1289
1,1,1-Trichloroethane	0.440	2402
cis-1,2-Dichloroethene	0.011	43.67
Toluene	ND	ND
Totals	**0.901**	**5159**

ppmv – parts per million by volume

The total soil gas extracted by the SVE system for the quarter was approximately 32.7 million cubic feet. A total of approximately 311 pounds of VOCs have been removed by the SVE system since start-up. Mass removal estimates are based on PID readings and SUMMA canister samples obtained periodically from the SVE influent. The removal rate for the SVE system has remained well below the de minimis allowed quantity of 10 pounds per day throughout this quarter.

Active or Completed Tasks

The following specific tasks were completed during the reporting period:

- Collected water samples on January 12, February 12, and March 8, 2004, from the treatment system influent and effluent sampling ports;
- Collected water level measurements on February 5 and generated a potentiometric surface map based on these measurements;
- Collected airflow data on a monthly basis;
- Collected the quarterly suite of samples from the monitoring network on February 26;
- Continued to operate the AI system on a 3 hour on/3 hour off cycle;

II. DELIVERABLES (CURRENT PERIOD AND NEXT PERIOD)

CURRENT PERIOD:

Deliverable	Due Date	Delivered
Quarterly Report	April 7, 2004	April 7, 2004

NEXT PERIOD:

Deliverable	Due Date
Quarterly Report	July 7, 2004

III. DIFFICULTIES ENCOUNTERED DURING REMEDIAL ACTIONS TAKEN THIS PERIOD

- Fan and heater thermostats in SVE system building failed and required replacement.
- Pumping rate from GSS-EW2 briefly fluctuated during February and was readjusted.

IV. ANTICIPATED ACTIVITIES DURING NEXT REPORTING PERIOD

During the next reporting period, M&E will perform the following tasks:

- Collect potentiometric surface data on a quarterly basis;
- Collect the annual suite of samples from the groundwater monitoring network in May;
- Sample the treatment system influent and effluent water on a monthly basis;
- Perform scheduled maintenance of the treatment systems;
- Perform scheduled data collection for the treatment systems;
- Acid wash the Shallow Tray™ air stripper; and
- Collect a SUMMA canister sample of the SVE effluent.

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GROUNDWATER DIVIDE

LEGEND

- MONITOR WELLS
- AIR MONITORING STATIONS
- EXTRACTION WELLS
- VILLAGE PRODUCTION WELLS
- OBSERVATION WELL
- * ELEV. NOT USED

Nonresponsive map showing municipal well locations

N 5,500

N 5,000

N 4,500

SCALE IN FEET
0 100' 200'

M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE

POTENTIOMETRIC SURFACE FEBRUARY 5, 2004

GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
POTFEB04	DMJ	JAW	–	016688	1